A PRELIMINARY EXAMINATION OF BUDGET PLANNING PRACTICES OF PRIVATE MIDWEST UNIVERSITIES

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An Abstract of a Thesis by
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The Problem

Higher education budgets have had problems being both efficient and effective. As students become harder to attract and costs continue to increase, it is important to find ways to reduce waste and stay competitive. Institutions are searching for the budgeting model that will work best for their institution. This research examines useage of budgeting models and incentive and participation programs to enhance the budget's effectiveness.

Procedure

This study is an analysis of eight private higher educational institutions in the Midwest. Data was collected from a combination of a review of literature and of a questionnaire.

Findings

The findings generally support the hypotheses that (a) Midwest private higher educational institutions use primarily the incremental budgeting model. (b) Participation and incentive programs are compatible with most budgeting models but are not being currently utilized in private higher educational institutions' budgeting process.

Conclusion

Institutions have a financial need to find a way to cut or to control their costs and become more efficient. Finding and implementing the appropriate budgeting model is one of the first steps for an institution to become more efficient.

Recommendation

Further quantitative research is needed to analyze the effect of participation and incentives on the budgeting process.

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Chapter 1

INTRODUCTION

The financial health of higher education is a growing concern to all of those working in or associated with higher education (Johnsrud, 1996). The cost to run an institution is greatly increasing and finding the money to pay for it is getting harder (Butterfield, Casey, Kane, Navarro, & Wolfe, 1995). The institutional budgeting process is just one way of looking at this financial problem and attempting to address it.

A budget is defined by Webster's II New College Dictionary (1995) as, "An itemized summary of probable expenditures and income for a given period" (p. 144). It is a tool that organizations use to plan for the future in financial terms. The budgeting process is thus, just the process of creating or planning the budget; and the term 'budgeting model' refers to a specific technique, methodology, or approach to create a budget.

Most for-profit and not-for-profit businesses use budgets to estimate their revenue and expenses. Over the years, many budgeting models have been developed for business as well as for higher education. At least 12 different budgeting models have been used in higher education institutions (Ahumada, 1990; Albright, 1985; Berg, 1985; Caruthers & Orwig, 1979; Holmberg-Wright, 1982; Meisinger & Dubeck, 1984; Smartt, 1984). Most of these models came from the business sector with the thought that if the models worked for business, they should work for higher education. However, many factors are not equal between these two sectors which would make it difficult to use the same type of budgeting model for both.

One major difference between higher education and the for-profit business sector is that the business's purpose is to make a profit selling its product or service. Higher education's purpose is to balance teaching, research, and service activities while simply breaking even on the cost (Caruthers & Orwig, 1979). Their goal is to break even since the price put on an education (the product) is less than the cost to produce it. However, higher educational institutions do not expect their consumers (students/parents) to pay the total amount. Therefore, institutions look for money from alumni, government, and other sources to subsidize the difference between the tuition amount and the actual cost.

To complicate this situation, if institutions do not budget their money efficiently and reduce waste (Halstead, 1991), their revenue from all the different sources may not cover all costs. Therefore, they would be forced to cut costs for academic programs, jobs, or employee raises in order to break even.

Higher educational institutions lack the incentives and multiple levels of participation in the budgeting process to motivate the institution's employees to operate efficiently (Lasher & Greene, 1993).

Purpose

The purpose of this study is to examine higher education budgeting models from eight Midwest private institutions. In addition, the intent is to determine if incentives and participation programs are being utilized and what effect, if any, the incentives and participation have on academic budgeting models.

Research Questions

1. What are the different types of budgeting models available?

2. What budgeting models are being used in Midwest private higher educational institutions?

3. Are participation and incentive programs compatible with the different types of budgeting models?

4. Are participation and incentive programs being used with the budgeting models at the eight private higher education institutions and to what extent?

5. If participation and incentive programs were compatible with the budgeting models, what effect does participation and incentives have on the budgets' outcome?

Hypotheses

1. Midwest private higher educational institutions use primarily the incremental budgeting model.

2. Participation and incentive programs are compatible with most budgeting models but are not being used in private higher educational institutions' budgeting processes.

3. The use of participation and incentive programs in the budgeting process will increase understanding, acceptance, and willingness to help, therefore, have a positive impact on the budget's outcome.

Assumptions

1. Private higher education has a different budgeting process than for-profit industries or public higher education which include many different revenue sources.

2. Institutions do not alter their budgeting process within a given academic year.

3. Participants in the budget process are active and can effect the way resources are distributed.

4. Many factors such as the economy, politics, and demographics influence the institutions' budgets, but they are not the focus of this study.

5. All budgeting models have some inherent merits.

6. These eight private higher educational institutions are representative of other Midwest private higher educational institutions of the same size.

7. The respondents of the surveys are the most appropriate individuals at those institutions to respond to the survey.

8. The respondents of the surveys knew and understood the definitions of the budgeting models listed on the survey.

9. The surveys were answered truthfully.

Definition of Terms

Budgeting Model - a specific technique, methodology, or approach used to plan or create a budget.

Incentives - in this study, something that motivates or compels people to act or to work to meet the goal of making the budget and the budgeting process effective and efficient.

Line Workers - those individuals not considered top administrators or managers and are involved in the day-to-day operations.

Participation - in this study, the action of actively involving or engaging people in the budgeting process.

Chapter 2

REVIEW OF LITERATURE

Higher Education as a Business

Higher Education is not a traditional business. As Strauss and Salamon (1979) explained, "...the college or university environment differs markedly from the for-profit sector. Clear lines of responsibility and the equally clear standard of profit by which to measure achievement are absent" (p. 14). Bowen (1980) described higher education as a professional industry, a subgroup of the service sector. This industry is noted for having slow gains in productivity and the use of technological changes does not necessarily increase its productivity. Other professional industries include areas such as health services, legal services, performing arts, libraries, education of all levels, churches, social welfare institutions, and many branches of government.

Bowen (1980) states three characteristics which set a professional industry apart from others.

1. It is based on an intellectual or esthetic foundation that requires exceptional skill developed only through long study and experience.

2. It is involved in the advancement of human well-being and the cultivation of the civic, cultural, religious, and intellectual life of the nation.

3. The performance of the services usually requires that the practitioners be physically in the presence of the clients. (p.30-31)

Cost reduction is difficult for professional industries to achieve because the unique characteristics of professional industries do not embrace technological changes. Even though there are ways to cut costs in the professional industries, new technologies are not necessarily less costly or of better quality than the old ways (Bowen, 1980). Bowen also noted (as cited in Lasher & Greene, 1993) that "there are simply too few incentives within colleges and universities to operate with great efficiency or to cut costs" (p. 441).

Winston (1997) explains that higher education and business both sell goods and services, hire workers, and have a physical plant with equipment, but they should not be treated alike. He described six economic characteristics that universities and colleges have that differ from other businesses: (a) Higher education is a nonprofit firm which reduces the pressure on management to operate efficiently. (b) Higher education managers are motivated more by idealistic goals such as educational excellence, equal access, and increasing diversity. (c) Higher education has two different revenue sources, donative and commercial. Some money is donated while the other is revenue from the sale of a product or service. (d) People don't really know that what they are buying from higher educational institutions is "an investment in human capital" (p. 34). (e) Higher education has a unique technology called "customer-input technology" (p.35) meaning students help educate each other. (f) Higher educational institutions differ in areas such as size, price, course offerings, and physical plants. As Bowen (1980) and Winston (1997) indicated, higher education and business may appear to be similar, but there are unique characteristics that deem it necessary not to treat them exactly alike especially in regard to their financial matters.

General Types of Higher Educational Budgets

Lasher and Greene (1993) list six general types of budgets found in higher education institutions. They are operating, capital, restricted, auxiliary enterprises, hospital operations, and service budgets. Not every institution incorporates all of these different types.

The operating budget is viewed as the core budget or the day-to-day operations. It generally includes all of the unrestricted funds and restricted funds specified for instructional and departmental support.

The capital budget includes expenditures for major facility construction, repair, and renovation. This budget type is concerned with planning for major expenditures that are too large or irregular to make part of the operating budget. The activities involved usually last longer than a single fiscal year (College and University, 1992).

Restricted budgets include expenditures supported by federal or other-sponsored research grants or contracts; non-government grants, specified endowment and gift income; and externally-provided student aid. The projects supported by this budget type are temporary by nature since funds may or may not continue from one fiscal year to the next.

Auxiliary budgets include those institutional support activities that have a dedicated flow of income from student user fees or charges the public admission. These auxiliary enterprises are expected to, "pay their own way" (Lasher & Greene, 1993, p. 430-431). Hospital operations are a specific type of auxiliary enterprise for those institutions affiliated with a teaching hospital. It includes the expenditures for noninstructional hospital services and activities.

The last budget type is the service budget. It includes the support units like print shop and telephone services that operate within the institutions. Their revenue comes from a transfer from other departments.

The purpose of budgeting, within these different types of budgets, is to distribute resources, to translate plans into actions, and to foster accountability (Caruther & Orwig, 1979; Holmberg-Wright, 1982; Jones, 1984). The problem is that many budgeting models do not incorporate accountability into them.

The actual process for creating a budget varies depending on what type of model the institution chooses. Different models include different participants and requirements.

Higher Educational Budgeting Models

The history of higher educational budgeting is filled with attempts to move from budgets focused on the inputs to budgets focused on the outcomes. Generally, these different methods have been used by a few institutions but were subsequently discarded (Lasher & Greene, 1993). Numerous types of budgeting models, tools, or approaches are available. The six most common types are explained here.

Incremental/Decremental Budgeting

The oldest and most common budgeting model is incremental/decremental budgeting (Breneman, Leslie, & Anderson, 1993; Caruthers & Orwig, 1979; College and University, 1992; Holmberg-Wright, 1982; Lasher & Greene, 1993; Meisinger & Dubeck, 1984; Schmidtlein, 1989; Vandament, 1989). In this model, each line item on the budget is considered for an increment, a decrement, or remains unadjusted. This model has the least amount of work, analysis, and conflict. It assumes that organizational priorities remain unchanged from one budget period to the next and that each line item needs its share of any inflationary allowance (Holmberg-Wright, 1982; Vandament, 1989). There is little, if any, review of programs to see if they are still needed or wanted. When budgets are tight and have little flexibility, incremental/decremental budgeting is viewed as positive (Holmberg-Wright, 1982, p. 30). There is little need for participation or incentives in this model. This model continues in the status quo.

Variations of the incremental/decremental budgeting model are quota budgeting and alternative level (College and University, 1992; Meisinger & Dubeck, 1984). In quota budgeting, the budget officer is given a single figure from which to build a budget. The single figure may be predicated on a percentage increase or decrease in current levels. This model assumes there is more priority setting by top-level administration.

Alternative level budgeting is a system of multiple budgets, one of which may be at the same amount as the previous year, one at a given increment above last year's amount, and one at a given decrement below last year's amount. This budgeting model allows the budgeting office an opportunity to see the changes to the bottom line with different scenarios.

Formula Budgeting

National Association of College and University Business Officers (NACUBO) defines formula budgeting as "the techniques by which the financial needs or operating requirements of an educational institution may be determined through the application of a formula" (as cited in Caruther & Orwig, 1979, p.38). The formulas manipulate certain institutional data based on mathematical relationships between program demands and the costs to estimate the amount of money to support future program operations (Ahumada, 1990; Albright, 1985; Breneman et al., 1993; Caruthers & Orwig, 1979; College and University, 1992; Holmberg-Wright, 1982;

Lasher & Greene, 1993; Meisinger & Dubeck, 1984; Schmidtlein, 1989; Vandament, 1989).

The most significant use of this model is at the state level with public institutions developing their appropriation requests (Holmberg-Wright, 1982; Lasher & Greene, 1993). This model provides more uniform and equitable distribution of funds, but it is enrollment-driven and lacks the mechanism to fund new programs. There is also unintended incentives and disincentives built-in such as rewarding high enrollment (Lasher & Greene, 1993). Participation is not a big factor in the process since the allocations are determined by formulas and have little direct political swaying.

Variations of the formula budgeting model are base-plus percentage budgeting and functional budgeting (Holmberg-Wright, 1982). The base-plus percentage formula calculates its base as the direct instructional expenditures, and all the remaining expenses are calculated as a percentage of the established base. The functional approach uses various algorithm formulas for cash functions and activities.

Program Budgeting

Program budgeting was one of the first attempts to develop a more output-oriented approach. It is defined as a budgeting method "in which budgets are created for specific programs or activities, rather than departments, and each program's budget is apportioned among the several departments that contribute to the program's activities" (Vandament, 1989, p. 129).

Planning, Programming, and Budgeting System (PPBS) is a well-known example of a program budget (Breneman et al., 1993; Caruthers & Orwig, 1979; College and University, 1992; Holmberg-Wright, 1982; Lasher & Greene, 1993; Meisinger & Dubeck, 1984; Schmidtlein, 1989; Smartt, 1985; Vandament, 1989). PPBS was used by the U.S. Department of Defense in the early 1960s but was only used for a short time. In 1966, the American Council on Education rejected PPBS as not being conceptually suited to higher education (Lasher & Greene, 1993).

PPBS's major strength is its focus on the ends rather than the means. It tries to match and allocate the appropriate resources by programs that lead to institutionally-desired outputs (Lasher & Greene, 1993). Defining what constitutes a program in higher education and measuring its specific outcomes is difficult. Any advantages created by this program cannot outweigh the accounting difficulties associated with the multiple programs found in higher educational institutions.

Incentives and participation programs could have some potential in the program budgeting model since more opportunities exist for input in the planning phase of the process. Even the use of incentives for people to stay on task would be possible.

Zero-based Budgeting

Zero-based budgeting demands total rejustification of every activity from base zero (Breneman et al., 1993;

Caruthers & Orwig, 1979; College and University, 1992; Gaither, 1978; Holmberg-Wright, 1982; Lasher & Greene, 1993; Meisinger & Dubeck, 1984; Schmidtlein, 1989; Vandament, 1989). No assumptions are made from the prior budget to the next budget. Zero-based budgeting focuses on results and outcomes and is a highly rational, objective approach. It requires a high level of understanding of activities, programs, and organizational units. The drawbacks are the large amount of time required and the substantial paperwork generated. The process does not recognize continuing commitments from year to year (Lasher & Greene, 1993) or fixed cost such as tenure.

Participation from the different levels of the institution is important to this model; the participants get the needed information to justify programs. Gaither (1978) indicated it is a problem to motivate participants and the zero-based budget lacks an adequate incentive system.

Performance Budgeting

Performance budgeting focuses on activities and functions and attempts to allocate resources on the basis of anticipated or past results (Caruthers & Orwig, 1979; Holmberg-Wright, 1982; Lasher & Greene, 1993; Meisinger & Dubeck, 1984; Schmidtlein, 1989). Its strengths are that it looks at the outcomes or accomplishments and it promotes an equitable allocation of resources to those units that meet performance criteria. However, it is difficult to define performance criteria and measurements and to measure long-term outcomes. This model's reporting documentation is also complex (Lasher & Greene, 1993; Schmidtlein, 1989). This model is used mostly at the state level of budget allocation for public higher education.

Responsibility Center Budgeting

Responsibility Center Budgeting (RCB) or cost center budgeting focuses on academic departments and support units as cost centers for fiscal purposes and expects them to be self-supporting (Caruthers & Orwig, 1979; Meisinger & Dubeck, 1984; Lasher & Greene, 1993; Berg, 1985; Strauss & Salamon, 1979).

RCB originated from the late Harvard President James Conant's idea that "every tub stands on its own bottom, each dean balances his own budget" (Millett, 1952, p.230 as cited in Caruthers & Orwig, 1979, p.28). Whalen (as cited in Lasher & Greene, 1993) provides three principles for RCB. (a) All costs and income are assigned to the school or unit it is associated with. (b) There should be appropriate incentive for each school or unit to increase its income and reduce its cost according to the academic priorities. (c) All costs of other non-academic units such as the library or counseling should be allocated among the academic units.

The major strength of this model is its rational approach to budgeting that facilitates accountability among the operating units. Berg (1985) noted that RCB is one method of encouraging effective, efficient performance. The budget is dependent on its output and the academic units are responsible for their own decisions about pricing and resource allocation. He also notes that not every unit needs RCB.

The weaknesses of this model are its difficulty to classify units as responsibility centers and the calculations for the allocation of support unit costs to the academic units are tedious and complex.

Participation is very high from the different units of the university and the use of incentives are strong in RCB. Every individual and department is trying to increase enrollment especially in programs with strong demand and low costs (Hoenack, 1977).

Other Types of Budgeting Models

Incentive Budgeting is another model and is similar to performance budgeting. It is output-oriented for public higher educational institutions from the state legislature. However, performance is difficult to measure in terms of output or outcome. Institutions get an incentive (more budget allocation) if they meet the educational goal or quality set by the state legislature (Lasher & Greene, 1993). However, fiscal incentives tend to emphasize short-term goals rather than long-term planning.

Participative Budgeting stresses the involvement of individuals at different levels of the institution in order to get the first-hand knowledge and experience of these individuals as opposed to top-down (Chabotar, 1995). As Chabotar (1995) and Hyatt (1985) explained, participative budgeting is slower and may create more controversy, but it also utilizes "user-friendly-communication" (Chabotar, 1995, p.22) that helps increase understanding and acceptance, and reduces waste, fraud, and abuse of institutional resources.

Block Budgeting is similar to RCB in that it takes a planning process to determine an amount that will be allocated to the different units but, in the end, the units develop the line-item budget that fits their specific needs (Massy, 1989; Halstead, 1991).

Participation

According to Caruthers and Orwig (1979), faculty, students, and administration are all affected by and therefore deserve to participate in the development of the institutional budget. He reminds us that faculty and students play unique and multiple roles in the process. Faculty has the traditional labor role and yet designs programs, which is a management role. Students have the role of consumer and product. However, participation in the budget process is generally not on a democratic basis and constituencies vary (Hyatt, 1985). Issues, such as time, knowledge level, and expertise, are taken into consideration (Meisinger & Dubeck, 1984).

Lenington (1996) insisted that a budget should be a bottom-up exercise so the individuals responsible for creating the budget are the same as those who spend it. However, the ability to secure cooperation from the participants in higher education is difficult. Unlike business, there are few incentive or bonus plans to motivate the participants (Gaither, 1978).

Another factor that effects the amount of participation in a given budgeting model is the degree of centralized authority. The more centralized the budgeting process is, the smaller number of participants. The more decentralized the process, the more participants. Breneman et al. (1993) state that "decentralization is believed to engender more effective budgets and more efficient performance" (p. 542). It is the idea that people who have some control over their work will perform better.

Lisensky (1988) gives two characteristics of a healthy institution of higher education as (a) it has a mission statement that focuses on the institution's strengths, goals, and values that will govern program assessment and resource allocation and (b) it has wide participation, understanding, and support in the planning process from across the campus community.

<u>Incentives</u>

The ability of organizations to operate effectively and efficiently is highly dependent on the degree to which the personal goals of individuals in organizations balance with organizational objectives (Berg, 1985; McCoy, 1992). "In higher education, administrators are finding that incentive pay programs motivate employees to work in partnership with leadership to achieve institutional objectives" (Butterfield et al., 1995, p. 4). People will work hardest to further their own objectives, so it is important to get the institutions' objectives and the participants' objectives to work together (Berg, 1985).

The misconception that higher education cannot use incentives is common. Even though cash rewards or incentives in private higher educational institutions are unusual, incentives may be monetary or nonmonetary, positive or negative, individual or collective. Individual incentives are usually more effective than collective incentives (Berg, 1985).

A related type of incentive plan is the suggestion system. Line employees of colleges and universities are capable of suggesting many changes that could increase effectiveness and efficiency and of identifying many areas of waste and mismanagement. Providing rewards or incentives for finding these suggestions may contribute to a successful change in policy or procedure. But it is also important not to punish those that did not participate by reducing their levels of budget support. Rewards help build morale and cooperation. Punishment creates demoralization and overall opposition (Berg, 1985; Lisensky, 1988).

"You've got to spend money to earn money." This old saying is the idea behind award and incentive funds. LaForge, Bolger, and Englander (1992) explain that funds for awards and incentives need to be designated at the onset not after cost savings are realized. This designation shows commitment by the university's administration to the incentive program. Butterfield et al. (1995) state that incentive pay programs are increasing in popularity.

The purpose of incentive programs in higher educational institutions is to encourage traits that improve customer service, institutional effectiveness, and employee morale (Butterfield et al., 1995). The incentive program rewards the individuals for performing the traits the first time with idea that the traits will become learned behaviors that will continue after the reward ends. This makes the incentives or rewards an investment instead of an expenditure.

Some of the best motivators can be simple and inexpensive (Meyer, 1994). These motivators include direct praise, peer recognition in newsletters, lunch paid by the institution, or a designated parking space.

Summary

Higher education may be in the business of selling a service and to some extent a product, but it should not be operated like a traditional business. Higher education has a unique revenue base and a special type of product that requires special treatment in regards to its financial matters.

Over the years, institutions have used different budgeting models, tools, techniques, and approaches in order to determine the amount to allocate to different lines of the budget. These budgeting models vary from simple increments to complex planning processes. The two factors that may lead to a more effective and efficient budgeting process and implementation are the use of participation in the budgeting process and the use of incentive programs.

Individually, these two characteristics are considered important to the process of motivating people to behave in certain manner. In other words, if an individual is included in the process of making a decision and feels involved, the individual is more likely to support and promote that decision. If that same individual is offered an incentive to complete a given task, it would increase the possibility that it would be completed sooner than originally planned.

Chapter 3

METHODS OF RESEARCH

Purpose

The purpose of this study is to examine higher education budgeting models from eight Midwest private institutions. In addition, the intent is to determine if incentives and participation programs are being utilized and what effect, if any, the incentives and participation have on academic budgeting models.

This study involves a review of eight medium-size private higher educational institutions in the Midwest. Each institution is described in a "case study" explanation. The purposes of the case studies are to (a) briefly describe each institution's use of budgeting models and (b) develop a possible explanation of why incentive and participation programs may or may not be compatible with the budgeting models used in private higher educational institutions.

A survey of ten questions (see Appendix) was electronically mailed to the institutions' chief financial officers or equivalent along with a letter of explanation. The individuals were asked to simply return their responses via the electronic mail.

The eight institutions are: Bradley University, Peoria, Illinois; Creighton University, Omaha, Nebraska; Drake University, Des Moines, Iowa; Marquette University, Milwaukee, Wisconsin; St. Louis University, St. Louis, Missouri; University of Evansville, Evansville, Indiana;

Valparaiso University, Valparaiso, Indiana; and Xavier University, Cinncinnati, Ohio. These private universities have a range of 3,000 to 11,000 students and offer a variety of similar academic disciplines for undergraduate, graduates, and professional programs.

Research Questions

The research questions were addressed and answered with a combination of the review of literature information and the information collected from the questionnaires.

1. What are the different types of budgeting models available? The information to answer this question will come from a review of the literature related to the subject.

2. What budgeting models are being used in Midwest private, higher educational institutions? This information will be obtained from the questionnaire sent to the institutions' chief financial officers.

3. Are participation and incentive programs compatible with the different types of budgeting models? This information will be come from a combination of reflective analysis of the review of literature information and responses to the questionnaire.

4. Are participation and incentive programs being used with the budgeting models at the eight private higher education institutions and to what extent? This information will be obtained from a questionnaire sent to the institutions' chief financial officers.

5. Are participation and incentive programs compatible with the budgeting models and what effect do participation and incentives have on the budget's outcome? This information will come from a combination of a reflective analysis of the review of literature information and of responses to the questionnaire.

Data Analysis

The answers to the questionnaire were reviewed and analyzed to determine the budgeting models used and the extent to which participation and incentives were utilized within the models. Additional information in the review of literature was examined in light of the research questions.

Hypotheses

1. Midwest private higher educational institutions use primarily the incremental budgeting model.

2. Participation and incentive programs are compatible with most budgeting models but are not being used in private higher educational institutions' budgeting processes.

3. The use of participation and incentive programs in the budgeting process will increase understanding, acceptance, and willingness to help, therefore, have a positive impact on the budget's outcome.

Limitations of the Study

1. Limited to eight case studies of private Midwest institutions of higher education.

2. Not all aspects of budgeting were examined. Incentives and participation were the two key characteristics

identified.

3. Limited to electronic surveys not interviews or observation.

4. Limited to a short survey to ensure participation.

5. May not be generalizable because of size.

Significance of the Research

Higher education budgets have had problems being both efficient and effective. As students become harder to attract and costs continue to increase, finding ways to reduce waste and stay competitive is important. Institutions are searching for the budgeting model that will work best for their institution. This research examines useage of incentive and participation programs in the budgeting models to enhance the budget's effectiveness.

Chapter 4

FINDINGS OF RESEARCH

All of the institutions reviewed are private, nonprofit institutions of higher education located in the Midwest region of the United States.

Findings Categorized By Case Study

Case Study - University A

University A offers baccalaureate and master's degrees. The enrollment is approximately 5,900 students with undergraduate, full-time tuition set at $12,010. The institution's revenue is reported at $79,472.000 with $79,458,000 in expenditures (American Universities, 1997). This institution uses a combination of incremental/ decremental, zero-based, and cost center budgeting models that involved only the top level administrators in the budgeting process. The budgeting process lasts 7-12 months and does not include incentive programs.

Case Study - University B

University B offers baccalaureate, master's, specialist's, and doctorate degrees. The colleges and schools within the university include: arts and science, education, journalism and mass communication, law, and pharmacy and health sciences. The institution enrolls approximately 5,400 students. The undergraduate tuition is $14,380. Revenue for University B is $91,586,828 and the expenditures are $90,493,844 (American Universities, 1997).

The top level administrators are the main participants in the institution's incremental/decremental budgeting process which lasts 4-6 months. The institution does not utilize an incentive program.

Case Study - University C

University C is a church affiliated institution that enrolls approximately 3,630 students. The undergraduate tuition is $12,990. The institution offers associate, baccalaureate, and master's degrees from a variety of seven different schools and colleges. The university's revenues are $56,612,337 with expenditures of $53,852,757 (American Universities, 1997). University C utilizes their middle level management and above in their incremental/decremental budgeting process. The budgeting process takes up to three months and includes no incentive programs.

Case Study - University D

University D is also church affiliated with an enrollment of approximately 10,600 students. The tuition for University D is $13,900 for undergraduates. The institution offers associate, baccalaureate, master's, specialist's, and doctorate degrees. The university consists of eleven schools or colleges. The revenue for the institution is $535,780,485 and the expenditures are $519,173,011 (American Universities, 1997). This institution uses middle and top level managers in their incremental/decremental budgeting planning process. The budgeting process takes 7-12 months. This institution does use incentives for their new programs. The new program may receive a predetermined percentage of any surplus that the program budget incurs.

Case Study - University E

University E is affiliated with a church and has an enrollment of approximately 6,430 students. The university offers associate, baccalaureate, and master's degrees. The undergraduate tuition is $12,950. The institution's revenue is $75,570,000 and expenditures of $73,034,000 (American Universities, 1997). University E's budgeting process requires up to three months to complete. Only top level administrators participate in this "other" model referred to as adjusted-base and roll forward. The institution acknowledged the use of incentives, but didn't elaborate with a description.

Case Study - University F

University F has an enrollment of approximately 6,200 students. Associate, baccalaureate, master's and doctorate degrees are awarded from this university. The institution consists of eight schools or colleges: arts and science, business administration, law, nursing, pharmacy, dentistry, medicine, and University College. The tuition for undergraduates is $11,746. University F has $196,300,000 in revenues with $189,100,000 in expenditures (American Universities, 1997). The institution uses a combination of incremental/decremental and responsibility cost budgeting models. The budgeting process includes middle and top level administrators in a 4-6 month process. This institution does not use incentive programs, but one has been proposed.

Case Study - University G

University G has an enrollment of approximately 10,500 students with an undergraduate tuition of $14,710. The institution has a church affiliation. They award associate, baccalaureate, master's and doctorate degrees from a variety of different schools and colleges within the university. The schools and colleges include: arts and science, business administration, education, engineering, communication, law, nursing, health sciences, graduate, and professional studies. The university's revenue is $209,436,000 and the expenditures are $208,444,000 (American Universities, 1997). The university includes all levels of employees in their program budgeting model. Their budgeting process continues for about 4-6 months and does not include any type of incentive plans.

Case Study - University H

University H also is affiliated with a church. The enrollment is approximately 3,480 students with the undergraduate tuition at $13,510. The university offers associate, baccalaureate, and master's degrees. The institution includes three colleges and one school. The revenue is $54,132,329 and the expenditures are $52,903,030 (American Universities, 1997). This institution uses the program budgeting model with participation from middle to top level administration. The budgeting process consists of 7-12 months and does not include any type of incentives.

Findings Categorized by Research Question

The findings of the questionnaire and the reflective analysis are categorized by each research question.

What are the different types of budgeting models available?

The review of literature uncovered fifteen different budgeting models available for higher educational institutions. Of these fifteen, six were identified as the prominent types. They include: incremental/decremental, formula, zero-based, performance, program, and responsibility center budgeting.

What budgeting models are being used in Midwest private, higher educational institutions?

The first inquiry on the questionnaire identified the budgeting model the institution uses from a list of seven choices, including an "other" option. The purpose for using a list instead of a fill-in-the-blank question was to put an element of control over the responses. As Table 1 shows, two institutions use incremental/decremental, two use program, one responded "other," and three use a combination of models. Within the last three years, six of the eight institutions have used incremental/decremental budgeting and within a couple of years, four of the eight are planning to use responsibility center budgeting.

The definitions or explanation of the different types of budgeting models were not included with the questionnaire since question six asked them to identify all of the budgeting models they had "heard of." The purpose of question number six was to determine the extent of some familiarity of budgeting models. Table 2 shows the complete list of models and number of respondents that have "heard of" each model. Only two of fifteen budgeting models, incremental/decremental and zero-based budgeting, were indicated by all eight respondents.

Table 1

Past, Present, and Future Budgeting Models of Eight Midwest Private Higher Educational Institutions

Budgeting Models	Currently Use	Will Be Changing To	Changed From
Incremental/Decremental	2 + abc	0	1
Formula	0	0	0
Zero-based	0 + a	0	0
Performance	0	0	0
Programming (PPBS)	2	0	0
Responsibility Center	0 + ab	2	0
Other	1 + c	0	0
Combination	3	0	0

Note. a = part of combination 1; b = combination 2; c = combination 3.

Inquiry two on the questionnaire asked why, in their opinion, did their institution chose the model they were using. Again, they had a choice of four options including "other" in case they needed to explain. Four of the respondents believe their budgeting model is the model that has "always been used." The other four chose "other," explaining that it is just an interim model, it depends on the department, it is easy for facilitating the budget process, and it is evolving from a model used for years.

Table 2

Budgeting Models and the Number of Respondents That Have "Heard Of" Each

Budgeting Model	Responses
Incremental/Decremental	8
Formula	7
Zero-Based	8
Performance	4
Program (Planning, programming & budgeting systems-PPBS	5
Responsibility Center-RCB (Cost Center)	7
Quota Budgeting	1
Alternative Level	1
Base-plus Percentage	7
Functional-formula	3
Incentive	6
Investment	0
Open-ended	0
Participative	2
Management by Objectives-MBO	6

Are participation and incentive programs compatible with the different types of budgeting models?

Not all of the budgeting models are compatible with participation and incentive programs. Incremental/decremental and formula budgets are not conducive to participation or incentive programs. The very nature of incremental/decremental and formula budgets involves only top administrators, thus the incentive for line workers to get involved is not available. Only a few people are involved with the allocation decisions which make the line workers suspicious and critical of the decision process. The lack of participation leaves little opportunity for an incentive program to motivate people to become more effective or efficient. The workers think that if they can do with less money this time, then they will receive less next time. This concept is not motivating.

The zero-based budget has more participation by nature since each unit has to basically prove itself to the administration each year. However, since each year the allocation has to be justified, there is potential for units to overestimate so they can realize a surplus in the next year if they receive an incentive for realizing a surplus. The incentive program is possible but would need to be well developed to avoid potential problems.

The other three budgeting types, performance, program, and responsibility center, are similar in that they involve a fair amount of participation. These models provide opportunities for the units to make decisions in the planning process which in turn provides opportunities for different incentive programs.

Table 3 shows the general level of planning and accountability by budgeting model. When more planning is involved, more participation is needed. The higher the accountability factor, the more opportunity for effective incentive programs.

Table 3

General Levels of Planning and Accountability in Budgeting Models

Budgeting Models	Planning	Accountability
Incremental/Decremental	low	none
Formula	low	none
Zero-based	medium-high	low-medium
Performance	medium-high	medium
Planning, Programming, & Budgeting System	high	high
Responsibility Center	high	high

Are participation and incentive programs being used with the budgeting models at the eight private higher educational institutions and to what extent?

Inquiry four of the questionnaire asked whether the institutions use any type of incentive program to encourage employees to stay within the budget allocations or to find additional cost-effective approaches to their jobs. Six of the eight institutions do not offer any incentive programs. Two of the six respondents who do not use incentives noted they had used incentives at a previous institution and would be developing such a program for the current institution in the near future and that an incentive program had been proposed.

Inquiry ten was a follow-up question to four; it asked them to describe their incentive programs and indicate if they felt it had an impact on the budget's outcome. Only one of the two institutions indicated the type of incentives s/he used and the impact of the incentives. The incentive applied only to new programs. If the program achieves a surplus, then it gets a predetermined portion of the surplus. This incentive program has had a positive impact on the budget. Another person commented that perhaps they do have an incentive system. The system is simple: you get to keep your job, you get a raise or not, or you avoid unpleasant administrative feedback.

Inquiry three of the questionnaire asked the level of employee involvement or participation in the budgeting process? Three institutions indicated they use only top-level administrators, four institutions indicated they use department heads and top administrators, and one institution indicated they use all levels. Table 4 shows the level of participation for each budgeting model.

Table 4

Level of Participation for Each Budgeting Model

Budgeting Models	Level of Participation Top Level Only	Middle Level & Above	All Levels
Incremental/Decremental	1	1	
Formula			
Zero-based			
Performance			
Programming (PPBS)		1	1
Responsibility Center			
Other	1		
Combination	1	2	

If participation and incentive programs were compatible with the budgeting models, what effect does participation and incentives have on the budgets' outcome?

As the review of literature indicated, incentive programs increase employees motivation to achieve the organization's goals. Participation is also noted to have a positive impact on the participants' level of understanding and compliance with the budgeting process. The connection can be made that if the level and/or amount of participation increases within an institution and incentive programs are implemented effectively, these two characteristics will have a positive effect on the budgeting process. The positive effect being an increase in compliance, a decrease in expenditures, an increase in revenue, or some combination of these three.

Inquiry five of the questionnaire asks the respondents to identify the average length of time for their budgeting process. They had five options including "other." Since different budgeting models may require a longer planning period because of the amount of participation, the question was meant to get a feel for how much time they are currently willing to spend on the budget process. Table 5 shows the time length indicated by the respondents for their institution's budgeting process for each budgeting model. Two institutions indicated 0-3 months, three institutions indicated 4-6 months, and the other three institutions indicated 7-12 months. One of the five also mentioned the need for a five year, long-range plan.

Inquiry seven through nine were intended to identify respondents thought on important characteristics or aspects of a budgeting model and the budgeting model they would choose. The institution that uses a combination of budgeting models would recommend that type of budget. The two institutions that currently use incremental/decremental budgeting recommend a responsibility center budget or something similar to it. One of the institutions with program budgeting recommends and will be transitioning to responsibility center budgeting. The other institution with program budgeting recommends staying with its current model.

According to the respondents, an institution's budget should include: increased participation, communication, higher levels of commitment, creation of budget advisory committee, longer planning horizon, funds available for venture capital or a surplus for a contingency fund, predictive enrollment model, and a net tuition revenue model.

Table 5

Length of Budgeting Process for Each Budgeting Model

	Months			
Budgeting Models	0-3	4-6	7-12	13-18
Incremental/Decremental	1	1		
Formula				
Zero-based				
Performance				
Programming (PPBS)		1	1	
Responsibility Center				
Other	1			
Combination		1	2	

Discussion of Findings

Numerous budgeting models are available for higher educational institutions, and to pick the one that will work best for a specific institution and its specific needs is not an easy task. Certain characteristics of budgeting models work better for higher education than other business or industries. The focus should be put on the actual purposes of budgeting which are (a) to distribute resources, (b) to translate plans into actions, and (c) to foster accountability. If the budgeting model includes all three of these aspects, the model will be more likely to successfully promote participation and incentive programs.

All of the budgeting models distribute resources, but they differ on the levels of planning and accountability. It takes people to translate the plans into action, so the more planning a model requires, the more participation will need to increase. The increase in participation will ultimately lead to the need for accountability. The people involved will want to know who is responsible or accountable for each part of the plan. Allowing people to participate in the planning process will increase their willingness to be held accountable for those decisions. People are motivated to perform better if they feel accountable for their work.

As stated before by Bowen (as cited in Lasher & Greene, 1993), "there are simply too few incentives within colleges and universities to operate with great efficiency or to cut costs" (p. 441). Institutions have a financial need to find a way to cut or control its cost and become more efficient. Finding and implementing the appropriate budgeting model is one of the first steps for an institution to become more efficient.

One of Lisensky's (1988) two characteristics of a healthy institution of higher education is that it has wide participation, understanding, and support in the planning process from across the campus community. This characteristic focuses on the fact that the planning process and the participation within it are important for a healthy institution.

Participation and incentive programs are compatible with budgeting models that also consider planning and accountability as important as the actual distribution of funds. As one of the questionnaire respondents indicated, their incentive program for new programs has had a positive effect on their budget's outcome.

Chapter 5

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

Summary

Higher education is not a typical business. It consists of heterogeneous, nonprofit organizations which receive a combination of donated money and earned revenue to help subsidize the cost of their product and service which is not fully understood by all customers. Since the cost of education is increasing and donated money is very difficult to acquire, an important alternative is to look at the budgeting process and the budgeting model for more effective and efficient budgets.

There are six basic budgeting models. They include incremental/decremental, formula, zero-based, performance, program, and responsibility center budgeting. They all focus on the distribution of resources, but not all of them have the same level of planning or accountability included in them.

The different levels of planning and accountability can be associated with the level of participation and incentive programs found in a budgeting model. The more planning required, the more likely there will be increased levels of participation. Also if there is a high amount of accountability within the model, then the more likely that an incentive program would be successfully implemented.

The methodology of this study is an analysis of eight private higher educational institutions from the Midwest. The collection of data comes from a combination of the literature review and a questionnaire. The questionnaire consisted of ten questions directed to the chief financial officer of the selected institutions.

The findings of the questionnaire included two institutions reporting they use incremental/decremental budgets, two reporting program budgeting, one reporting other, and three reporting a combination of budgeting models. Four of the eight responses indicated they thought that the model is the one that has always been used. The other four responses indicated "other" reasons that included two indicating this is a transition model. Three institutions use only top level administrators in their budgeting process, four others indicated the category of middle managers and above, and one indicated the category of all levels. Six of the eight institutions do not currently use incentive plans. Two institutions indicated their average length for the budgeting process as 0-3 months, three said 4-6 months, while the other three marked 7-12 months. The two most commonly known budgeting models among the chief financial officers were incremental/decremental and zero-based budgeting models.

Conclusion

The findings of this study generally support the hypothese stated.

1. Midwest private higher educational institutions use primarily the incremental budgeting model. Six of the eight institutions surveyed indicated they use or have used the

incremental/decremental budgeting within the last three years.

2. Participation and incentive programs are compatible with most budgeting models but are not being used in private higher educational institutions' budgeting processes. The analysis of the review of literature explains how participation and incentive program are compatible with most budgeting models. As the case studies showed, only two of the eight use incentive programs in their budgeting model.

3. The use of participation and incentive programs in the budgeting process will increase understanding, acceptance, and willingness to help, therefore, have a positive impact on the budget's outcome. The analysis of the review of literature explains how participation in the budgeting process will increase understanding and acceptance of the budgeting process. The incentives help motive the employees or increase their willingness to help make the budget and the budgeting process more efficient and effective. Improving the efficiency and effectiveness of the budget and budgeting process will logically have a positive impact on the budget's outcome.

Recommendation for Further Research

Areas for further research include: a quantitative look at the effect of participation and incentives on the budgeting process, a comparison of budgeting models between private and public institutions, the effect of politics on the budgeting process, and a revised look at the costs associated with higher education especially since most physical plants are starting to become dated or are out-of-date.

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APPENDIX

Cover Letter and Questionnaire

Dear Chief Financial Officers,

I would appreciate it if you take a few moments to complete the following 10 questions. It is for a thesis that I am writing entitled "Effects of Incentives and Participation Programs on Academic Budgeting Models."

I have chosen to send them out by e-mail to save on time and postage, but if you feel uncomfortable with this process, Please reply with a blank form. I will send out a second mailing in a week.

Please complete the following questions by checking only one of the choices.

1. What type of budgeting model does your institution use?
   ______ Incremental / decremental
   ______ Formula
   ______ Zero-Based
   ______ Performance
   ______ Program (Planning, programming and budgeting systems)
   ______ Responsibility Center (Cost Center)
   ______ Other - identify & explain:________________________

2. Why do you think your institution chose to use this model?
   ______ This is the model always used.
   ______ The lack of a better model.
   ______ This is the best model for your institution.
   ______ Other - explain: ________________________________

3. What level does your employees have involvement or participation in your budgeting process?
   ______ Top level only (top administrators)
   ______ Middle level and above (Department heads and above)
   ______ All levels (front line employees - all those who need and want to participate)
   ______ Other - explain: ________________________________

4. Does your institution use any type of incentive program to encourage employees to stay within the budget allocations or to even find more cost effective approaches to their jobs?
   ______ yes
   no

5. What is the average length of your institution's budgeting process?

_____ 0-3 months
_____ 4-6 months
_____ 7-12 months
_____ 13-18 months
_____ Other - give specific length of time __________

6. Please check ALL of the budgeting models that you have heard of.

_____ Incremental / decremental budgeting
_____ Formula budgeting
_____ Zero-Based budgeting
_____ Performance budgeting
_____ Program budgeting (Planning, programming & budgeting systems)
_____ Responsibility Center Budgeting (Cost Center)
_____ Quota Budgeting budgeting
_____ Alternative Level budgeting
_____ Base-plus Percentage budgeting
_____ Functional-formula budgeting
_____ Incentive budgeting
_____ Investment budgeting
_____ Open-ended budgeting
_____ Participative budgeting
_____ Management by Objectives (MBO) budgeting

Please complete the following questions.

7. What aspects of your institution's budget model do you like the most?

8. What aspects do you think a successful budgeting model in private higher education institutes would or should have?

9. If you were to choose a budgeting model for your institution, which one would it be? Why?

10. If you indicated in question 4 that your institution uses incentive programs, please describe them and indicate if you feel they had an impact of the budget's outcome, positive or negative.